STATE OF NEW YORK
DEPARTMENT OF CONSERVATION
WATER POWER AND CONTROL COMMISSION

THE WATER TABLE IN THE WESTERN AND CENTRAL PARTS OF LONG ISLAND, NEW YORK

By

C. E. JACOB

Prepared in Cooperation with the Geological Survey
United States Department of the Interior

BULLETIN GW-12

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THE WATER TABLE IN THE WESTERN AND CENTRAL PARTS OF LONG ISLAND, NEW YORK

By C.E. Jacob

INTRODUCTION

Since January 1932, the Geological Survey, United States Department of the Interior, has cooperated with the New York State Water Power and Control Commission, the Nassau County Department of Public Works, the Suffolk County Board of Supervisors, and more recently also with the Suffolk County Water Authority, in an intensive study of the ground-water resources of Long Island. This work is under the general direction of O. E. Meinzer, Geologist in Charge of the Division of Ground Water, of the Water Resources Branch of the Survey, and under the immediate supervision of M. L. Brashears, Jr., Geologist in Charge of ground-water investigations in New York and New England.

The continuing program has included the systematic measurement of water levels in shallow observation wells on the island. The purpose of these measurements has been in part to map the ground-water table and to evaluate its fluctuations, whether natural ones resulting from variations in rates of precipitation, evaporation, and transpiration, or artificial ones resulting from pumping for municipal, industrial, agricultural, or other useful purposes. The contour map of the water table presented in this report represents in a sense the culmination of an effort to expand a growing network of observation wells to cover most of Long Island. In another sense, however, it will merely serve as a guide, along with earlier contour maps, pointing to a more complete and accurate map that may be obtained by adequate coverage of the entire island by shallow test wells, and particularly of the critical area in Brooklyn and western Queens.

The present map has been made possible by the cooperative effort of many persons. Mr. W. Fred Welsch, Senior Engineer of the Nassau County Department of Public

Works, willingly made available members of the staff who assisted the Geological Survey in making the water-level measurements in May 1943. Mr. Henry L. Frauenthal, of the same organization, offered many helpful suggestions. Grateful acknowledgment is also due Mr. Russell Suter, Executive Engineer of the New York State Water Power and Control Commission, whose constructive criticism led to notable improvements in the map. The coverage of western Suffolk County was made possible by the financial cooperation of the Board of Supervisors and the Water Authority of that county. The drafting of the map and sections was executed by Mr. Lauren R. Wistoft, of the Geological Survey.

GEOLOGY

The geology of Long Island has been discussed at length by several writers (6) (10) (12) (13) and will therefore only be sketched briefly here.

Long Island is formed of glacial deposits of varying thickness that were laid down on unconsolidated beds of Cretaceous age. The backbone of the island is a double row of hills representing terminal moraines fashioned by the great ice sheets of the Pleistocene epoch. South of these morainal deposits is an outwash plain that slopes gently toward the ocean. The outwash material is quite permeable and rather uniform in structure. The water table in the area south of the moraines is accordingly a more or less continuous surface of low slope, though modified somewhat by the streams that it feeds.

Along the north shore of the island the glacial deposits are much less homogeneous and generally less permeable, being composed in part of till. Numerous bays cut into the shore of the island along the sound. Flowing into these bays are many small streams of steep slope, some of which are fed by natural springs. In the area north of the moraines there are several small lakes and water tables perched on impermeable lenses above the main water table. There the main water table slopes steeply and in irregular fashion, generally toward the north shore.

The upper Cretaceous beds that underlie the glacial deposits on most of Long Island and crop out in some places are also of importance because of their influence on the configuration of the main water table. The uppermost beds of that series, which are supposedly of Magothy age, comprise interbedded sands and silts totalling several hundred feet in thickness. Underlying these sands and silts are clays assigned to the Raritan formation, which in turn are underlain by Lloyd sand, also considered to belong to the Raritan formation. The Lloyd sand, an excellent water-bearing bed, rests unconformably on the ancient crystalline rocks, and dips toward the southeast about 100 feet to the mile. The sands of the Magothy formation, as well as the Lloyd sand, all have the main water table on Long Island as the source of their head. These sands unquestionably affect the shape of the main water table.

In many areas over the island it is difficult to establish the bottom of the main water-table aquifer.

EARLY GROUND-WATER RECORDS

In 1851 water-level measurements were made in about 30 shallow wells in the southern parts of Kings and Queens Counties. These were reported by McAlpine (1) in 1852. However, neither the exact locations of the wells nor the dates of measurements are given.

The earliest known contour map of the water table of any part of Long Island appeared in 1867 in a report by Kirkwood (2). It covered the area lying between Jamaica and Hempstead and extending about 8 miles inland from the south shore. The measurements upon which this map was based presumably were made in the late fall of 1859 or the early spring of 1860 (3). In 1854 Stoddard (4) reported elevations of the water table at several wells in Brooklyn in connection with a study of possibilities of water supply from underground sources in that area.

MAP OF 1903 BY BURR-HERING-FREEMAN COMMISSION

In November 1903 the Commission on Additional Water Supply for the City of New York reported its findings to the Commissioner of Water Supply, Gas and Electricity (5). This Commission came to be known as the Burr-Hering-Freeman Commission, for those were the names of its members. Their report included a contour map (Plate VIII of Appendix VII, following p. 810) of the water table as of July 1, 1903, based on water-level readings in 1,378 shallow wells, 333 of which were 2-inch test wells driven especially for that purpose. The map covered that part of Long Island lying west of Manor and Moriches, Suffolk County, except the area within the Borough of Brooklyn of the City of New York. By means of a five-foot contour interval it showed a water table conforming to the general outline of the island and modified by the numerous bays and streams. The maximum slopes of the water table on the south shore, as measured on ten north-south sections across the island ((5), Plate VII of Appendix VII, following p. 810), ranged from 7 to 20 feet per mile and averaged about 14 feet per mile. Slopes on the north shore were reported as ranging from 30 to 100 feet per mile, though they were not so well defined because of the variable composition and structure of the morainal material there in contrast to the more nearly uniform deposits that underlie the outwash plains to the south.

The datum of the Brooklyn Water Department was used in the Burr-Hering-Freeman investigation. It was found to be 1,087 feet above the Willets Point datum, the latter having been fixed by tide observations at Willets Point from 1891 to 1895.

The highest water-table elevation, slightly over 100 feet above sea level, was shown near the Nassau-Suffolk County line between Hicksville and Huntington. However, the contours there were drawn as a succession of short dashes, indicating that some uncertainty was attached to their value or meaning in that area.

On page 811 of the Burr-Hering-Freeman report the following statement is made:

"Where these contours are shown as a succession of long dashes, the surface of the ground water is well established; where shown as dotted lines, as on some of the areas covered by the moraine and the thick layers of till on the northerly portion of the island, the location of the surface of the water table is somewhat conjectural, because few existing wells were found there of sufficient depth to reach the true water table and the cost of the necessary wells, some of which would have had to be fully 150 feet in depth, was prohibitive. The surface of the ground water, which is held by the fine compact material forming the moraines and the layers of till that partially cover the northerly portion of the island, are not shown on this 1903 contour map. Since, in general, it appears that the water from these elevated strata is slowly percolating into the sands and gravels that, as the geologists have shown, underlie the mantle of till, to what might be termed the lower water table, which is the surface shown by the contours. . . The strata between these two saturated layers are, in some localities, completely saturated, the difference between the elevations of the two water tables representing the loss of head through vertical seepage; but in many localities the intervening sands were found to be only partially saturated."

In recent years wells of the requisite depth have been drilled in some of the doubtful areas shown on the 1903 map. The results are given on the contour map accompanying this report (Plate 1). Some of these wells struck water at two levels before the main water table was reached, confirming the observation made in 1903.

The 1903 water-table map of the Burr-Hering-Freeman Commission was republished

with slight modifications by the Geological Survey in 1906 in a report on the ground-water resources of Long Island (6). The location of contours in doubtful areas was again shown by dotted lines.

The western part of the 1903 water-table map, covering Queens and Nassau Counties only, was reproduced in 1912 by the Board of Water Supply of the City of New York in their report on obtaining an additional supply of water for the City of New York from Suffolk County (7).

An extension of the 1903 water-table contours into Brooklyn was made by Wiggin in 1934 in an engineering report on behalf of the New York Water Service Corporation, objectors to the application of the City of New York to the Water Power and Control Commissiòn for additional ground-water supply in Brooklyn, Queens, and Nassau (8). Those contours, which had been terminated at the Brooklyn-Queens boundary, were extended into Brooklyn on the basis of water levels reported by Stoddard (4) in 1854, trunk-sewer invert elevations, and water levels from records of test borings for subway construction. The highest elevation of the water table shown in Brooklyn for 1903 was about 20 feet. Wiggin remarked, "it is probable that a few isolated areas in the high parts of Prospect Park and elsewhwere had higher levels. . " The Burr-Hering-Freeman contours of 1903 were again published in 1937, by the Water Power and Control Commission (11), together with Wiggin's extension of those contours into Brooklyn (8). Comparison was made with water-table contours for 1936.

MAP OF 1908 BY BOARD OF WATER SUPPLY, CITY OF NEW YORK

The report of the Board of Water Supply (7) referred to previously is appropriately called the Spear report after Walter E. Spear, at that time Division Engineer of the Board of Water Supply. Under his direction an intensive investigation was made of the ground-water resources of western Suffolk County. The study of ground-water levels was extended eastward to the longitude of Riverhead.

The Spear report contained a map (Vol. 1, sheet 6, opposite p. 108) showing the configuration of the water table on July 1, 1907, in that part of Suffolk County lying west of Riverhead, in addition to the above mentioned water-table map of Queens and Nassau for 1903 (Vol. 1, sheet 1, opposite p. 60) republished from the Burr-Hering-Freeman report. The contour interval was five feet. All elevations were referred to a new datum 1.72 feet below the datum of the Brooklyn Water Department.

General agreement was shown between the Spear map of 1907 of western Suffolk County and the Burr-Hering-Freeman map of 1903 covering the same area. Many of the wells put down during the 1903 investigation were later used by the Board of Water Supply. In addition, about 300 two-inch test wells were driven in the area to augment those wells and other existing wells available for observation.

Caution in the interpretation of the water-table contours in certain areas was again urged in the Spear report, as the following quotations from pages 108 and 109 will show:

> "The ground-water contours shown here define, however, only the main surface of saturation. In the moraines, local beds of clay and boulder till maintain elevated water-tables that are much higher and quite independent of the main surface of saturation. Between these elevated or "perched" water-tables . . . . and the main water-table below, the strata are only partially saturated. . . .
>
> "There are but few observations upon the surface of the main water-table beneath the high and compact morainal ridges, and the ground-water contours there are drawn in a general way from the observations in wells outside of these areas. This lack of information in these areas does not appreciably affect the accuracy

of the determination of the ground-water catchment. The few wells in the doubtful area between the Nassau County line and Elwood indicate that the ground-water summit is not far from the surface divide of the southerly moraine."
(Underscoring is ours.)

MAP OF 1933 BY WIGGIN

A contour map of the water table in Brooklyn and Queens in May 1933 was presented by Wiggin in connection with hearings before the Water Power and Control Commission on the application by the City of New York already referred to. This was a joint effort by consulting engineers for the objecting water-supply companies and officials of the New York Department of Water Supply, Gas and Electricity. By comparing this map with the 1903 contours and their extension into Brooklyn, Wiggin estimated the amount of water that had been withdrawn from storage in that critical area during the intervening 30 years. Wiggin's map of 1933 was published by Laase (9) in 1934 and by Thompson, Wells, and Blank (10) in 1937.

MAP OF 1936 BY NEW YORK STATE WATER POWER AND CONTROL COMMISSION

In Bulletin GW-2 of this series (11), published by the Water Power and Control Commission in 1937, Suter gave a water-table map for 1936 with a five-foot contour interval, covering again the area from Riverhead westward. To obtain the data numerous wells were measured, some of them after relatively short periods of recovery. In many cases it was necessary to estimate elevations from topographic maps ((11), p. 51), but despite this lack of refinement the 1936 contour map was of value in indicating important changes, even in the short period from 1933 to 1936, particularly in the critical area of Brooklyn.

In commenting on the state of knowledge at the time of the hearings on the application of the City of New York in 1933 Suter stated (pp. 48, 50) "All along

the Queens-Nassau County line this Brooklyn overdraft had lowered the ground-water level by many feet. How far into Nassau County that effect went and whether it extended to Suffolk was not then (1933) known." One object of the studies made in 1936 was to fill in this gap, but again perched water-table conditions presented a serious handicap. With the funds available and with the time allotted it was not then possible to drill the necessary deep test holes to determine the true position of the main water table in the center of the island. Suter repeated the warnings given in both the Burr-Hering-Freeman and Spear reports, in the following words: "There is ever present danger that in hills, along the moraines and in disturbed strata generally levels may be taken in wells piercing perched water deposits and so fail to indicate the true upper surface of the main body of ground water." ((11), p. 51). This reservation tempered his summation (p. 50) of the results of the investigation just then completed: "Latest information showed material changes for the worse in the period 1933-1936. Not only has the Brooklyn depression gone down - - as was expected - - but the depressed area has extended far to the east into Queens County. The effects in Nassau County are serious and there can be no doubt but that they extend even into Suffolk, although somewhat masked by the difficulty of avoiding perched water tables in the ranges of hills near the county line." (Underscoring is ours.)

Deep observation wells drilled more recently in that area passed through the perched water tables and reached the main water table. As discussed more fully below, it now appears that the effect of pumping in Brooklyn has not extended to Suffolk County. The apparent decline of the water table at the Nassau-Suffolk County line is attributable first to the fact that the early maps contoured perched water tables, and secondly, to differences in antecedant precipitation.

MAP OF 1943 BY GEOLOGICAL SURVEY

Plate 1 is a map of the western and central parts of Long Island showing by contours the configuration of the main water table in May 1943. The contours are drawn with a 10-foot interval on the basis of water-level measurements in 289 shallow wells distributed among the counties as follows:

Agency, or Owner	County			
	Kings	Queens	Nassau	Suffolk
Nassau Co. Dept. of Public Works	0	0	167	0
New York City Board of Water Supply	0	0	0	28
New York City Dept. of Water Supply	12	25	6	8
New York Water Service Corporation	7	0	0	0
U. S. Geological Survey	0	0	1	20
Industrial or other	9	0	1	5
Totals	28	25	175	61

The table beginning on page 17 gives pertinent data concerning these wells. The State well numbers are those adopted by the New York State Water Power and Control Commission (14) and widely used by other agencies. The same numbers are used in the series of Water-Supply Papers (15) in which complete water-level records for most of the 289 wells are published, most of them going back to the beginning of record. The owner's number is given in many cases to assist in referring to the early records.

Under "Location" are given addresses or nearest street intersections, though in many cases merely the localities are given. The depth of the well means the total depth measured inside the casing from the top. The top of the casing is generally within about a foot of the ground surface, except as noted under

"Remarks."

The tabulated water-level elevations are based mostly on measurements made near the end of May 1943. The more recently completed wells in Suffolk County were measured in June 1944. At the end of that month the water table over most of Long Island, as shown in other representative shallow wells, was generally at about the same level as it was at the end of May 1943.

Water levels in supply wells of the New York Water Service Corporation in Flatbush, Brooklyn, were taken from testimony of Thomas H. Wiggin, Consulting Engineer, given at a hearing before the Water Power and Control Commission. In some cases these are static levels of wells in service.

All elevations given in the table refer to mean sea level. The elevations of measuring points on the well casings have been determined by differential leveling done by the Geological Survey. The general order of significance of the water-table elevations is indicated on the map, most of the elevations being given to the nearest tenth of a foot. Water levels determined at another time than at the end of May 1943 are given to the nearest foot only.

Where the density of wells is adequate the contours are drawn as full lines. Where information is lacking or where there is some uncertainty as to its interpretation, the contours are drawn as broken lines. No attempt has been made to draw in the contours below the 60-foot contour in northern Nassau County because many of the wells in that area undoubtedly reach only to perched water tables. That is true, for example, of wells N 1171 and N 1172.

There is a large area in northwestern Suffolk County in which there are few shallow observation wells. The provisional dashed contours there should be regarded only as suggestive of the general shape of the main water table in that area. Farther to the east, between Lake Ronkonkoma and Carman's River, the coverage is better, particularly along two recently completed profiles

(sections H-H' and I-I').

In drawing contours along the south shore of Suffolk County the 1908 map by the Board of Water Supply was used as a guide, allowance being made for the general decline of water levels that is known to have occurred since that time (16). Also allowance was made for the difference in datum planes.

No contours are shown for that area in Queens County lying north of the terminal moraine, except for the zero contour. This contour encircles the center of heavy pumpage in the Woodhaven area and separates the high area of north Queens from the low area in Brooklyn. At two "stagnation points" it intersects the closed zero contour that completely encircles the island along its shore. One of these points is on Jamaica Bay and the other assumedly on Newtown Creek. A similar zero contour separates the high area of Gravesend from the rest of Brooklyn.

Perhaps the most striking difference between the map on plate 1 and earlier water-table contour maps of Long Island is the configuration of the high in Nassau County. The maximum elevation of the main ground-water table in Nassau County in May 1943 was about 85 feet, or approximately 15 feet lower than shown on the 1903 contour map. Furthermore, the high point in 1943 was about 5 miles west of its position according to the 1903 map. However, it must be kept in mind that on the 1903 map the contours in that area were drawn as dotted lines, indicating that the position of the true water table was conjectural, as pointed out above (p. 10). Comparison of the two water tables is best seen on section G-G', plate 2. Section F-F' shows the same divergence of levels, though to a lesser degree.

Differences in average elevation of the water table in 1903 and 1943 as shown on the other sections of plate 2 is attributable partly to differences in precipitation. A recent study (16) of early water levels and precipitation and

their long-term correlation shows that in 1890 or about that year the water table was at its highest stage since 1850. A secondary high was reached in 1903. On the basis of precipitation data it is estimated that in Nassau and western Suffolk Counties the water table should have averaged about four or five feet lower in 1943 than in 1903. The profiles of plate 2 show approximately that much difference in the stage of the water table at the beginning and end of this 40-year period.

Another significant difference between the present contour map and earlier maps is in the shape and extent of the water-table depression in Brooklyn and western Queens. The probable original shape of the water table in Brooklyn is indicated on section A-A' on plate 2, which is based on Wiggin's extension of the 1903 contours (8). The decline that has occurred there is the result of pumping for industrial purposes and for public water supplies (17). In the early years of the ground-water development in Brooklyn the decline was gradual. In recent years it has been accelerated and the water-table depression has expanded. A comparison of the 1933 and 1936 contour maps shows that the water table in parts of Brooklyn and Queens declined rather sharply during that three-year period. Since 1936 there has been only a small net decline, although the depression has continued to expand. In general, low water levels were reached about 1941. Since then there has been a slight recovery of water levels in the area of most concentrated pumping.

Referring to section B-B' on plate 2, it is seen that in 1943 the water table was lower everywhere along that section than it was in 1903. Part of that difference in levels is due to the difference in average rates of precipitation before 1903 and before 1943, which was discussed above. However, the major part of the difference in water levels there is due to the pumping distributed over the area adjacent to that section ((17), fig. 6).

In view of the relative nearness of the center of heavy pumping in Brooklyn

to the East River, it is not likely that the effect of that pumping reaches very far into Queens. As the water table hinges on the tidewater in the nearby channels, any transient state of flow set up by a change in the rate of pumping in that area soon degenerates into a new steady state of flow without affecting appreciably the water levels at comparably greater distances in the opposite direction.

Nothwithstanding the evident overdraft in Brooklyn and in parts of Queens, the ground-water resources of Long Island as a whole are still not fully utilized. The potential supply in the central and eastern parts of the island is tremendous.((11), p. 32). Through proper development it may be used for municipal, industrial and agricultural purposes on a scale that has scarcely been anticipated.

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Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
K 30		C. J. Tagliabue Co.	Park and Nostrand Avenues, Brooklyn	8	50	12.00	-27.8	May 29, 1945	Well in basement; top of casing about 6 ft. below street.
K 65	2	A. Ludwig Co.	125 Middleton St., Brooklyn	6	59.1	12.84	-25.6	do	Well in pit; top of casing 4.5 ft. below ground surface.
K 67		Y. M. C. A.	179 Marcy Ave., Brooklyn	8	50.7	7.55	-19.2	do	Well in pit in basement; top of casing 39.6 ft. below street.
K 92		St. John's Univ.	75 Lewis Ave., Brooklyn	6	98.6	64.4	-21.6	do	Well in pit in basement; top of casing 71.5 ft. below street.
K 97		The Borden Co.	52 Lexington Ave., Brooklyn	8	120	62.23	-24.8	Apr. 5, 1944	Well in building; top of casing about 2 ft. below street.
K 104		do	798 Fulton St., Brooklyn	10	88±	5.5±	-25.4	May 29, 1945	Well in pit in basement; top of casing about 72 ft. below street.
K 196	1	Knick. Ice Co.	12th Ave. and 37th St. Brooklyn	10	157.8	79.68	-3.1	do	Well in building; top of casing about 7 ft. above street.
K 501	F 1	N. Y. W. S. C.	363 Dahill Road, Brooklyn	24	102.5	46.65	-4.9	June 1945	Water level reported by Thos. H. Wiggin.
K 502	F 2	do	E. 51st St. near Newkirk Ave., Brooklyn	26	101	10.90	-9.2	Mar. 27, 1945	Top of well about 4.8 ft. below ground surface.
K 504	F 4	do	Albany Ave. and Foster Ave., Brooklyn	24	108.5	19.81	-9.5	June 1945	Water level reported by Thos. H. Wiggin.
K 508	F 8	do	807 Caton Ave., Brooklyn	24	120	49.92	-13.5	do	do
K 515	F 15	do	865 McDonald Ave., Brooklyn	26	92.4	53.02	-2.6	do	do
K 513	F 14	do	1267 Utica Ave., Brooklyn	26	90	25.52	-10.0	do	do
K 533		do	E. 98th St. near Rutland Road, Brooklyn	8	295	42.58	-22.4	May 29, 1945	
K 535	Grave.1	N. Y. C. D. W. S.	Ave. S and E. 16th St., Brooklyn	6	85.5	14.09	+2.4	May 1, 1945	Well in trench; top of casing about 5 ft. below ground surface.
K 559		do	Atlantic Ave. and Logan St., Brooklyn	4½	32.7	22.62	-5.4	May 29, 1945	Well in basement; top of casing 10.5 ft. below ground.
K 921		Byrndun Corp.	Grand and St. Marks Aves., Brooklyn	10	264	117.88	-25.5	do	Well in building; top of casing about 2 ft. above street.
K 1198		N. Y. C. D. W. S.	Cleveland and Fulton Sts., Brooklyn	1½	53.4	56.90	-5.5	do	
K 1199		do	Jefferson and Howard Aves., Brooklyn	1½	75.6	48.62	-16.0	do	
K 1235		do	Fulton St. and Pennsylvania Ave., Brooklyn	1½	79.4	60.47	-9.1	do	
K 1236		do	Lexington and Patchen Aves., Brooklyn	1½	81.7	50.91	-17.8	do	
K 1237		do	Delmonico Pl. and Hopkins St., Brooklyn	1½	65.2	18.02	-34.0	do	
K 1263		do	E. 16th St. and Cortelyou Rd., Brooklyn	1½	49.7	55.87	-10.4	do	
K 1264		do	E. 57th St. and Snyder Ave., Brooklyn	1¼	66.6	45.89	-14.4	do	
K 1265		do	Thatford St. and Riverdale Ave., Brooklyn	1½	45.8	23.22	-10.6	do	
K 1266		do	Vermont St. and Livonia Ave., Brooklyn	1¼	41.4	27.68	-5.9	do	
K 1296		do	Blake Ave. and Crystal St., Brooklyn	2	55.9	8.50	-1.4	do	
K 1347		Albee Theatre	DeKalb Ave. and Fulton St., Brooklyn	48	57.8	26.26	-20.4	do	Well in basement; top of casing about 14 ft. below street.
N 157		J. N. Hill	Cedar Swamp Road., Wheatley Hills	6	300	218.68	85.0	do	
N 1101	D 1	N. C. D. P. W.	Valley Rd., near Willets Rd., Manhasset	1¼	38.6	49.88	44.1	May 28, 1945	
N 1102	D 2	do	Willets and Valley Rds., Lake Success	2½	140.0	185.82	54.8	do	
N 1103	D 3	do	Marcus Ave. and Lakeville Rd., Lake Success	2	120.8	146.12	55.6	do	
N 1104	D 4	do	80th Ave. near Rhodes St., New Hyde Park	2	78.6	125.37	56.7	do	
N 1105	D 5	do	Emerson and Whittier Aves., New Hyde Park	2	61.4	108.20	54.4	do	
N 1107	D 7	do	Kingston Ave. and Bertha St., So. Floral Park	1¼	37.2	66.41	44.2	do	
N 1108	D 8	do	Jacob St. and Rosalind Ave., Elmont	1¼	47.1	70.12	39.6	do	
N 1109	D 9	do	Dutch Broadway and Henry St., Elmont	1¼	37.5	42.34	27.4	do	
N 1110	D 10	do	Henry Street, No. Valley Stream	1¼	27.5	30.85	20.3	do	

Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
N 1111	D 11	N. C. D. P. W.	Fletcher and Teneyck Aves., Valley Stream	1¼	27.3	20.44	14.2	May 28, 1943	
N 1112	D 12	do	Sunrise Highway and 2nd St., Valley Stream	1¼	22.2	13.44	9.4	May 29, 1943	
N 1113	D 13	do	DuBois Ave. and Drew St., Gibson	1¼	22.2	10.46	6.1	May 28, 1943	
N 1114	D 14	do	W. Broadway and Hamilton Ave., Hewlett	1¼	31.4	24.00	10.2	do	
N 1115	D 15	do	Wood St. and Brower Ave., Woodmere	1¼	19.7	22.88	10.9	do	
N 1117	E 1	do	On Fraser property, Sands Point	1¼	38.3	18.31	4.7	do	
N 1118	E 2	do	Harbor Acres, Port Washington	2½	131.2	152.06	90.4	do	
N 1119	E 3	do	Port Washington	2½	145.0	154.20	118.0	do	
N 1120	E 4	do	Flower Hill	2½	94.7	117.37	57.8	do	
N 1121	E 5	do	Strathmore Village	2½	177.9	220.05	61.4	do	
N 1122	E 6	do	North Hills	4	139.0	178.99	65.1	do	
N 1123	E 7	do	Herricks	2½	95.9	144.53	66.1	do	
N 1124	E 8	do	Garden City Park	1¼	59.9	109.93	64.8	do	
N 1125	E 9	do	Garden City Park	1¼	48.8	93.96	62.2	do	
N 1126	E 10	do	Steward Ave. and Sackville Rd., Garden City	1¼	49.4	86.74	57.8	May 29, 1943	
N 1127	E 11	do	Munson	1¼	38.1	75.15	52.7	May 28, 1943	
N 1128	E 12	do	Munson	1¼	38.5	63.03	42.6	do	
N 1129	E 13	do	Lakeview	1¼	38.4	50.90	31.7	do	
N 1130	E 14	do	Malverne	1¼	33.4	37.51	21.8	do	
N 1131	E 15	do	Malverne	1¼	28.5	24.41	13.4	do	
N 1132	E 16	do	Sunrise Hwy., and Lakewood Blvd., Lynbrook	1¼	27.1	20.87	8.4	May 29, 1943	
N 1133	E 17	do	East Rockaway	1¼	23.4	10.03	3.4	May 28, 1943	
N 1134	F 1	do	Roslyn	1¼	33.3	39.04	21.8	May 31, 1943	
N 1135	F 2	do	Roslyn	2	87.5	144.27	68.2	do	
N 1136	F 3	do	Albertson	1¼	62.8	125.81	69.7	do	
N 1137	F 4	do	Williston Park	1¼	48.8	107.31	74.2	do	
N 1138	F 5	do	Mineola	1¼	48.5	104.37	72.6	do	
N 1139	F 6	do	Garden City	2½	59.1	102.96	67.9	do	
N 1140	F 7	do	Kellum Pl. and 9th St., Garden City	1¼	42.5	91.34	61.0	do	
N 1141	F 8	do	Garden City	1¼	32.5	76.56	54.5	do	
N 1142	F 9	do	Hempstead	1¼	33.6	61.92	45.8	do	
N 1143	F 10	do	Hempstead	1¼	34.5	53.11	35.8	do	
N 1144	F 11	do	South Hempstead	1¼	31.9	46.85	33.1	do	
N 1145	F 12	do	Rockville Centre	1¼	27.6	40.16	27.7	do	
N 1146	F 13	do	Rockville Centre	1¼	32.3	37.76	24.7	do	
N 1147	F 14	do	Seaman Ave. near Knollwood Rd., Baldwin	1¼	23.4	27.32	18.1	do	
N 1148	F 15	do	Baldwin	1¼	27.3	21.21	6.7	do	
N 1149	G 1	do	Glen Cove	2½	-	89.60	42.2	May 28, 1943	
N 1150	G 2	do	Glen Cove	1¼	20.6	53.08	37.5	do	

Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
N 1151	G 3	N. C. D. P. W.	Glen Cove	1¼	26.2	34.05	23.3	May 28, 1945	
N 1152	G 4	do	do	4	130.4	154.05	51.4	do	
N 1153	G 5	do	Glen Head	2½	85.5	121.66	61.5	do	
N 1154	G 6	do	Greenvale	2½	141.2	178.65	64.0	do	
N 1155	G 7	do	East Hills	4	229.9	260.50	73.0	do	
N 1156	G 8	do	Old Westbury	4	108.9	158.08	76.8	do	
N 1157	G 9	do	do	1¼	115.9	170.25	77.7	do	
N 1158	G 10	do	do	1¼	51.7	111.22	77.1	do	
N 1159	G 11	do	Carle Place	1¼	33.4	86.14	72.4	do	
N 1160	G 12	do	Stewart Ave., Mitchel Field	1¼	45.5	92.57	65.8	May 29, 1945	
N 1162	G 14	do	Uniondale	1¼	58.5	70.50	51.7	May 28, 1945	
N 1163	G 15	do	do	1¼	28.7	56.22	44.9	do	
N 1164	G 16	do	Roosevelt	1¼	34.2	48.98	33.6	do	
N 1165	G 17	do	do	1¼	31.5	40.59	26.4	do	
N 1166	G 18	do	Freeport	1¼	27.4	29.15	18.2	do	
N 1167	G 19	do	No. Ocean and Brooklyn Avenues, Freeport	1¼	27.5	25.76	11.3	May 29, 1945	
N 1168	G 20	do	Freeport	1¼	27.9	14.01	5.0	May 28, 1945	
N 1171	H 2	do	Lattingtown	2½	58.1	85.28	62.4	do	
N 1172	H 3	do	Locust Valley	2½	101.5	145.99	61.0	do	
N 1173	H 4	do	Glen Cove	2½	96.9	144.60	66.6	do	
N 1174	H 5	do	Chicken Valley Road, Old Brookville	2½	60.1	112.92	72.6	do	
N 1175	H 6	do	Near No. Hempstead Turnpike, Old Westbury	4	158.5	176.99	79.4	do	
N 1176	H 7	do	Post Ave. and Wheatley Road, Old Westbury	4	197.8	194.61	82.1	do	
N 1177	H 8	do	Hitchcock and Powell Lanes, Old Westbury	4	146.2	182.88	85.6	do	
N 1179	H 10	do	School St. near Old Country Road, Westbury	1¼	37.7	104.24	75.0	do	
N 1181	H 12	do	Fulton St. near Merrick Avenue, East Meadow	1¼	38.0	82.85	58.5	do	
N 1182	H 13	do	Spring St. and Merrick Avenue, East Meadow	1¼	37.8	70.91	51.1	do	
N 1183	H 14	do	William Street, North Merrick	1¼	52.6	50.17	37.0	do	
N 1184	H 15	do	Meader and Camp Avenues, North Merrick	1¼	27.6	33.17	22.3	do	
N 1185	H 16	do	W. Grand Avenue and Lindgren Street, Merrick	1¼	17.1	21.12	13.2	May 29, 1945	
N 1186	H 17	do	Merrick Road and Central Parkway, Merrick	1¼	25.1	9.90	5.4	May 28, 1945	
N 1187	O 1	do	Bayville	1¼	25.1	5.15	3.8	May 27, 1945	
N 1188	O 2	do	Mill Neck	1¼	35.6	56.80	22.6	do	
N 1189	O 3	do	do	1¼	33.1	66.71	61.4	do	
N 1190	O 4	do	Matinecock	4	99.1	127.86	60.0	do	
N 1191	O 5	do	Upper Brookville	2½	97.2	154.38	75.0	do	
N 1192	O 6	do	Muttontown	2½	77.6	142.82	86.3	do	
N 1193	O 7	do	Brookville	2½	97.2	251.05	85.5	May 27, 1945	
N 1194	O 8	do	Jericho	2½	104.0	174.24	86.5	do	

Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
N 1195	O 9	N. C. D. P. W.	Hicksville	2½	-	146.99	83.2	May 27, 1945	
N 1196	O 10	do	do	1¼	61.9	124.87	78.7	do	
N 1197	O 11	do	do	1¼	61.0	116.62	74.5	do	
N 1198	O 12	do	Newbridge Road, So. of Hicksville	1¼	51.7	100.84	66.7	do	
N 1199	O 13	do	East Meadow	1¼	47.5	88.95	59.8	do	
N 1200	O 14	do	North Bellmore	1¼	37.1	69.61	50.7	do	
N 1201	O 15	do	North Bellmore	1¼	31.7	55.07	42.1	do	
N 1202	O 16	do	do	1¼	28.4	44.62	33.4	do	
N 1203	O 17	do	Bellmore	1¼	25.3	27.29	25.0	do	
N 1204	O 18	do	Harris Court and John Street, Bellmore	1¼	28.6	21.47	11.5	do	
N 1205	O 19	do	Bellmore	1¼	28.3	9.26	1.8	do	
N 1206	P 1	do	Bayville	1¼	30.3	8.62	3.0	do	
N 1207	P 2	do	Oyster Bay	1¼	23.7	22.53	22.4	do	
N 1208	P 3	do	do	1¼	30.7	59.17	45.1	do	
N 1209	P 4	do	East Norwich	2½	67.7	146.21	102.4	do	
N 1210	P 5	do	do	2½	139.6	188.25	95.6	do	
N 1211	P 6	do	Syosset	2½	156.0	217.25	75.4	do	
N 1212	P 7	do	Jericho Turnpike, Locust Grove	4	184.4	228.21	84.6	do	Recorder well.
N 1213	P 8	do	Hicksville	2½	109.5	175.18	84.7	do	
N 1214	P 9	do	do	1¼	79.6	148.68	80.5	do	
N 1215	P 10	do	Bloomingdale Road and Broadway, Hicksville	1¼	55.6	115.47	75.2	do	
N 1216	P 11	do	Central Blvd., Central Park	1¼	53.8	104.45	65.7	do	
N 1217	P 12	do	Island Trees	1¼	32.4	76.94	57.5	do	
N 1218	P 13	do	Jerusalem	1¼	41.6	76.15	51.8	do	
N 1219	P 14	do	North Wantagh	1¼	28.3	57.06	42.3	do	
N 1220	P 15	do	Seaford	1¼	22.5	44.05	30.0	do	
N 1221	P 16	do	do	1¼	28.5	32.18	20.6	do	
N 1222	P 17	do	Cecelia Place and John Street, Seaford	1¼	28.5	21.18	8.9	do	
N 1223	P 18	do	South Massapequa	1¼	23.3	6.09	2.8	do	
N 1224	T 1	do	Cove Neck	1¼	-	25.41	3.7	do	
N 1225	T 2	do	do	1¼	19.9	8.51	5.0	do	
N 1226	T 3	do	do	1¼	62.3	35.74	24.9	do	
N 1227	T 4	do	Oyster Bay Cove	2½	134.1	171.46	49.9	do	
N 1228	T 5	do	Syosset	4	178.8	225.77	65.2	do	
N 1229	T 6	do	do	4	201.5	251.30	75.2	do	
N 1230	T 7	do	Plainview	2½	144.3	174.56	81.8	do	
N 1231	T 8	do	do	2½	85.2	142.72	79.6	May 27, 1945	
N 1232	T 9	do	Plainview Road and Plain Hay Path, Plainview	2½	54.5	111.81	76.0	do	
N 1233	T 10	do	Plainview Road and Motor Parkway, Bethpage	1¼	53.7	95.19	69.2	do	

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N 1234	T 11	N C. D. P. W.	Plainview Road, Central Park	1¼	65.3	101.13	62.2	May 27, 1943	
N 1235	T 12	do	Farmingdale	1¼	54.3	72.13	53.7	do	
N 1236	T 13	do	North of Massapequa Centre	1¼	44.5	70.46	45.4	do	
N 1237	T 14	do	Massapequa Centre	1¼	34.2	55.95	37.6	do	
N 1238	T 15	do	Massapequa	1¼	28.6	40.54	29.1	do	
N 1239	T 16	do	Massapequa Park	1¼	28.5	30.44	19.0	do	
N 1240	T 17	do	ManhattanAvenue, Massapequa Park	1¼	28.2	23.00	10.7	do	
N 1241	T 18	do	South of Massapequa Park	1¼	23.7	7.40	4.4	do	
N 1242	U 1	do	North Hempstead Turnpike, Cold Spring Harbor	1¼	31.1	41.08	26.6	do	
N 1243	U 2	do	Velsor-Stillwell Road, Cold Spring Harbor	1¼	16.0	64.61	55.5	do	
N 1244	U 3	do	Jericho Turnpike and Avery Road, Syosset	4	259.0	248.89	71.7	do	
N 1245	U 4	do	Plainview Road, Plainview	2½	202.3	259.93	76.6	do	
N 1246	U 5	do	Plainview-Melville Road, Plainview	4	124.7	185.10	78.1	do	
N 1247	U 6	do	Near Motor Parkway, Bethpage	1¼	109.5	157.13	72.1	do	
N 1249	U 8	do	Secatoque Avenue and Wall Street, Farmingdale	1¼	34.0	67.84	53.3	do	
N 1250	U 9	do	Old Carmans Road, Farmingdale	1¼	33.5	62.24	46.3	do	
N 1251	U 10	do	County Line Road, Farmingdale	1¼	28.7	48.85	38.8	do	
N 1252	U 11	do	County Line Road and Smith Street, Amityville	1¼	25.5	29.31	25.5	do	
N 1253	U 12	do	Clocks Blvd. and Pine Street, Amityville	1¼	28.7	28.48	15.7	May 29, 1943	
N 1254	U 13	do	County Line Road and Merrick Road, Amityville	1¼	28.7	14.04	5.8	May 27, 1943	
N 1255		do	Clinton Road and St. James Street, Garden City	1¼	54.6	79.36	61.0	May 29, 1943	Replaced N. Y. C. D. W. S. Well CH 196.
N 1256		do	Hillside Avenue and Bacon Road, Westbury	1¼	50.5	112.34	76.5	do	Replaced N. Y. C. D. W. S. Well Ch 201.
N 1257		do	Carman and Scranton Avenues, East Rockaway	1¼	27.9	21.94	7.9	do	Replaced N. Y. C. D. W. S. Well L 44.
N 1258	M 58	N. Y. C. D. W. S.	Carmans Road, Farmingdale	1½	20.8	48.19	37.6	do	
N 1259		U. S. G. S.	Hicksville-Massapequa Road, Plainedge	1¼	47.5	78.37	52.5	do	Replaced N. Y. C. D. W. S. Well M 183.
N 1260		N. C. D. P. W.	Main Street near Pittsburgh Avenue, Massapequa	1¼	29.3	33.14	21.6	May 31, 1943	Replaced N. Y. C. D. W. S. Well S 45.
N 1262	S 169	N. Y. C. D. W. S.	Wantagh Avenue near So. State Parkway, Wantagh	1½	17.1	40.96	34.8	May 29, 1943	
N 1263		N. C. D. P. W.	Wantagh and Farmingdale Roads, Central Park	1¼	32.2	65.97	50.8	do	Replaced N. Y. C. D. W. S. Well S 181
N 1264	S 183	N. Y. C. D. W. S.	Newbridge Road, near Sunrise Highway, Bellmore	1½	25.2	13.72	8.2	do	
N 1461		N. C. D. P. W.	New South Road at L. I. R. R., So. Hicksville	6	74.5	131.49	76.0	do	Recorder well. Top of casing 2.0 feet above ground.
N 1462		do	Bloomingdale Road at L. I. R. R., Island Trees	6	51.7	94.98	62.9	do	do
N 1463		do	Seaman's Neck Road and So. State Parkway, Jerusalem	6	30.6	50.67	38.7	do	do
N 1464		do	Grant and Franklin Avenues, Seaford	6	42.1	30.32	16.1	do	Recorder well. Top of casing 1.5 feet above ground.
N 1614	L 161	N. Y. C. D. W. S.	Herricks Road, Garden City Park	1½	35.8	100.70	68 ±	-	
N 1615	CI 264	do	Merrick Avenue, East Hempstead	1½	25.6	62.75	44.5	May 28, 1943	
N 1616	CI 276	do	Post Avenue and Argyle Road, Westbury	1½	48.4	122.80	81.1	May 29, 1943	
N 1621	X 1	N. C. D. P. W.	Bellerose	1¼	60.1	85.85	39.5	May 28, 1943	
N 1622	X 2	do	Belmont Park	1¼	55.0	76.07	35.6	do	
N 1623	X 3	do	Elmont	1¼	54.6	63.56	31.7	do	

Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
N 1624	X 4	N. C. D. P. W.	Elmont	1¼	44.9	47.95	24.5	May 28, 1943	
N 1625	X 5	do	Valley Stream	1¼	36.8	37.57	18.2	do	
N 1626	X 6	do	do	1¼	24.2	16.14	11.5	do	
N 1682		do	Crocus and Elm Avenues, Bellerose	1¼	54.9	83.11	43.5	May 29, 1943	
N 1683		do	Stewart Avenue and 6th Street, New Hyde Park	1¼	43.9	83.05	55.7	May 31, 1943	
N 1684		do	Madison and Stewart Avenues, Garden City	1¼	48.0	89.53	58.3	May 29, 1943	
N 1828		do	Melville Road, near Suffolk Co. Line, Farmingdale	6	37.0	83.89	60.0	May 28, 1943	Recorder well replacing N 1248. Top of casing 2.0 feet above ground.
N 1829		do	Stewart Avenue and Newbridge Avenue, Salisbury	6	29.2	79.17	67.7	May 29, 1943	Recorder well replacing N 1180. Top of casing 2.5 feet above ground.
N 1830		do	Tyson Avenue near L. I. R. R., Floral Park	6	68.1	97.32	50.7	do	Recorder well replacing N 1106. Top of casing 2.3 feet above ground.
Q 1089		N. Y. C. D. W. S.	North Conduit Avenue near L. I. R. R., Aqueduct	2	52.3	20.51	1.9	do	Replaced N. Y. C. D. W. S. Well A 33.
Q 1090		do	Hawtree Creek Road, near 133d Avenue, Aqueduct	1½	42.2	31.62	4.2	do	Replaced N. Y. C. D. W. S. Well A 43.
Q 1223		do	Rockaway Blvd. and 142d Place, South Ozone Park	2	32.0	26.60	8.0	do	Replaced N. Y. C. D. W. S. Well A 55 A.
Q 1224		do	102d Avenue near Van Wyck Blvd., Jamaica	2	47.5	47.65	8.6	do	
Q 1225		do	109th Avenue and 200th Street, Hollis	2	32.0	49.40	28.4	do	
Q 1248		do	100th Rd. and Belt Parkway, Queens Village	1½	48.9	76.53	36.5	do	
Q 1249		do	106th Avenue and 216th Street, Queens Village	1½	49.5	72.35	32.3	do	
Q 1250		do	Liberty and Camden Avenues, Hollis	1½	26.0	37.56	21.2	do	
Q 1251		do	107th Avenue and 172d Street, Jamaica	1½	38.2	42.69	11.8	do	
Q 1252		do	Liberty Avenue and 157th Street, Jamaica	1½	28.2	31.18	12.9	May 1, 1943	
Q 1253		do	101st Avenue and 121st Street, Richmond Hill	1½	53.8	49.16	3.9	May 29, 1943	
Q 1254		do	101st Avenue and 108th Street, Richmond Hill	1½	53.7	45.46	-0.5	do	
Q 1255		do	Atlantic Avenue and Woodhaven Blvd., Woodhaven	1¼	52.8	40.43	-3.2	do	Replaced N. Y. C. D. W. S. Well A25 A.
Q 1256		do	95th Avenue and 82d Street, Woodhaven	1½	37.6	23.97	-2.9	do	
Q 1261		do	Liberty Avenue and Woodhaven Blvd., Ozone Park	1½	38.8	28.78	-1.0	do	
Q 1262		do	Liberty Avenue and 115th Street, Richmond Hill	1¼	52.4	40.02	1.9	do	Replaced N. Y. C. D. W. S. Well A 38A.
Q 1263		do	Rockaway Blvd. and 121st Street, So. Ozone Park	1¼	32.6	26.74	4.9	do	
Q 1264		do	Rockaway Blvd. and Lincoln Street, So. Ozone Park	1½	43.1	33.84	8.2	do	
Q 1265		do	132d Street and 111th Avenue, So. Ozone Park	1½	47.4	42.72	7.5	do	
Q 1266		do	144th Place near Jamaica Avenue, Jamaica	1¼	49.0	46.94	10.3	do	
Q 1267		do	Merrick Blvd. and 116th Avenue, St. Albans	2	27.1	25.53	12.8	do	
Q 1268		do	Murdock Avenue and 180th Street, St. Albans	1½	28.5	36.30	18.5	do	
Q 1289		do	Springfield Blvd. and 110th Avenue, Queens Village	2	31.5	53.80	32.1	do	
Q 1290		do	Merrick Road and Springfield Blvd., Springfield	2	22.2	24.03	16.9	do	
Q 1292		do	Union Turnpike and 185th Street, Jamaica	1½	44.0	67.71	27.5	do	
S 203		C. A. Gould	Wolf Hill Road, Deer Park	10	259.0	203.45	71.3	do	
S 1803	SU 12	N. Y. C. D. W. S.	Belmont Avenue and Farmingdale Road, Babylon	1½	13.4	21.69	16.4	do	
S 1805		do	Farmingdale Road and Albany Avenue, Amityville	2	22.9	57.19	43.0	do	Replaced N. Y. C. D. W.S. Well SU 37.

Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
S 1806	SU 47	N. Y. C. D. W. S.	Wellwood and Long Island Avenues, Pinelawn	1½	39.7	86.38	56.4	April 30, 1943	
S 1807	SU 66	do	Higbie Lane near Hunter Aveune, near Babylon	1½	11.7	24.67	22.1	May 29, 1943	
S 1808	SU 75	do	Sagtikos Manor Lane, Brightwaters	1½	14.7	15.85	11.1	do	N. Y. C. B. W. S. Well 49 is nearby.
S 1809	SU 81	do	Sagtikos Manor Lane, Brightwaters	2	27.0	41.49	29.3	do	
S 1810	SU 86	do	Sagtikos Manor Lane, Brentwood	1¼	47.8	90.10	50.9	do	
S 1812		U. S. G. S.	Smithtown Blvd. and Nichols Road, Nesconset	1¼	37.0	69.05	47.1	do	
S 1813		do	Johnson Avenue, Ronkonkoma	1¼	39.5	58.75	38.5	April 30, 1943	
S 1814		do	Suffolk and Lowells Avenue, Central Islip	1¼	48.7	79.63	37.0	May 29, 1943	
S 1815		do	Suffolk and Eastern Avenues, Brentwood	1¼	39.2	72.14	45.7	do	
S 1816		do	Brentwood and Commack Roads, Deer Park	1¼	37.5	85.21	57.2	do	
S 1817		do	Long Island Avenue and 18th Street, Wyandanch	1¼	23.6	58.93	51.9	do	
S 2454		L. I. R. R.	Near Deer Park Avenue at L. I. R. R., Babylon	10	68.8	13.07	7.6	do	
S 2455		U. S. G. S.	Bay Shore	10	20.0	35.29	25.0	do	Recorder well. Top of casing 2.2 feet above ground.
S 2545	106	N. Y. C. B. W. S.	Suffolk Avenue and Blydenburgh Road, Central Islip	2	27.6	62.32	54.9	do	
S 3112	SU 53	N. Y. C. B. W. S.	L. I. Ave. and Little East Neck Rd. Wyandanch	1½	33.5	78.09	54.2	do	
S 3496		U. S. G. S.	Coates Avenue near L. R. R. R., Holbrook	1¼	75.8	115.87	49.0	do	
S 3497		do	Long Island and Waverly Avenues, Holtsville	1¼	64.9	103.81	48.4	do	
S 3498		do	Long Island Avenue, Medford	1¼	60.5	94.71	45.4	May 27, 1943	
S 3512		N. Y. S. D. H.	Middle Country Road, Lake Grove	8	60.9	107.41	68.4	do	
S 3513		do	Middle Country Road, Selden	8	64.2	102.10	65.3	do	Recorder well.
S 3514		Herman Jurgens	Jericho Turnpike, Commack	30	94.5	154.22	66.4	May 29, 1943	
S 3515	57	N. Y. C. B. W. S.	E. 3d Avenue, near Brook Street, Bayshore	2	35.0	44.15	34.1	do	
S 3516	58	do	E. 3d Avenue, near Walbridge Avenue, Bayshore	2	37.7	60.50	38.4	do	
S 3517	60	do	Lakeland Avenue and Tariff Street, Sayville	2	19.6	31.56	13.1	do	
S 3518	79	do	Islip Avenue near Locust Street, Central Islip	2	34.7	51.73	32.2	May 27, 1943	
S 3519	95	do	Carleton Ave. near Manhattan Blvd.,Central Islip	2	33.8	32.60	26.1	do	
S 3520	146	do	Sylvan Ave. and Church St., near Blue Point	2	42.6	41.54	19.0	May 29, 1943	
S 3521	162	do	Medford Avenue, Medford	2	49.5	72.57	37.5	May 27, 1943	
S 3522	166	do	Waverly Avenue, Patchogue	2	43.7	45.35	19.7	May 29, 1943	
S 3523	202	do	Barton Avenue, Patchogue	2	39.5	49.24	27.0	May 27, 1943	
S 3524	215	do	Park Road, near Yaphank Avenue, Yaphank	2	35.2	46.45	22.3	do	
S 3525	216	do	Long Island Ave., near Yaphank Ave., Yaphank	2	35.7	54.02	26.9	do	
S 3526	218	do	Long Island Ave., and So. Haven Road, Yaphank	2	-	89.93	27.8	do	
S 3527	222	do	Horseblock Road, Plainfield	2	88.2	87.71	33.1	do	
S 3529	238	do	Horseblock Road, Brookhaven	2	34.1	38.42	26.6	do	
S 3530	240	do	Near L. I. R. R., west of Yaphank Ave., Yaphank	2	45.5	65.92	33.3	do	
S 3531	254	N. Y. C. B. W. S.	River Rd., north of Montauk Highway, South Haven	2	55.5	25.29	10.1	do	
S 3532	265	do	Whiskey and Randall Roads, Ridge	2	69.8	85.00	48.6	do	
S 3533	272	do	South of Middle Country Road, Middle Island	2	51.5	61.46	47.0	do	

Well Number State	Well Number Owner's	Owner	Location	Diameter (inches)	Depth (feet)	Elevation of top of casing (feet)	Water Level Elevation (feet)	Water Level Date	Remarks
S 3545	130	N. Y. C. B.W. S.	Lincoln Ave., north of Church Street, Holbrook	2	46.0	56.56	36.7	May 29, 1943	
S 3727	129	do	Church St. near Lincoln Avenue, Sayville	2	42.0	40.06	32.0	June 29, 1944	
S 3728	186	do	Near Montauk Hwy., and Taylor Ave., Hagerman	2	46.9	48.11	21.6	June 28, 1944	
S 3729	204	do	Dunton and Barton Avenues, Hagerman	2	39.6	58.59	28.8	Sept.10, 1943	
S 3730	207	do	Dunton Ave. and So. Haven Rd., Plainfield	2	57.2	80.45	35.4	June 28, 1944	
S 3731	244	do	Taylor Ave. extension near Montauk Hwy, Hagerman	2	44.2	52.02	24.5	do	
S 3732	259	do	Mt. Sinai Rd. near Port Jefferson Rd., Coram	2	76.4	109.83	52.3	June 27, 1944	
S 3733	467	do	Lincoln Ave. south of Church Street, Sayville	2	47.2	36.79	17.9	June 29, 1944	
S 3735	1214	do	Old Town Rd., near Dare Road, Selden	2	54.9	115.08	65.6	June 27, 1944	
S 3736		U. S. G. S.	Lincoln Ave. and Schmidt St., Holbrook	1¼	57.9	93.25	44.4	June 29, 1944	
S 3737		do	Holbrook Rd., south of Jericho Tpke, New Village	1¼	64.0	110.54	56.5	June 27, 1944	
S 3738		do	Oxhead Rd. north of Jericho Tpke, New Village	1¼	68.8	114.59	56.7	June 30, 1944	
S 3739		do	Lincoln Ave. near Church Street, Sayville	1¼	30.5	50.32	28.5	June 29, 1944	Replaced N. Y. C. B. W. S. Well 128.
S 3868		do	Upper Sheep Pasture Rd. Setauket Station	2	114.0	99.63	37.3	June 26, 1944	
S 3869		do	Mt. Sinai Rd. near Middle Country Rd., Coram	2	44.0	84.57	55.2	June 27, 1944	
S 3870		do	Mill Pond Rd. near Middle Country Rd., Coram	2	43.8	88.11	54.5	June 28, 1944	
S 3871		do	Fire Rd. west of Bellport Rd., Plainfield	2	91.5	128.64	46.8	do	
S 3955		do	Pond Rd. near Horseblock Rd., Setauket Station	1¼	78.0	122.43	33.1	June 27, 1944	
S 3956		do	Millers Place and Yaphank Rds., Millers Place	1¼	124.4	145.47	31.7	do	

L. I. R. R. = Long Island Railroad

N. C. D. P. W. = Nassau County Department of Public Works

N. Y. C. B. W. S. = City of New York, Board of Water Supply

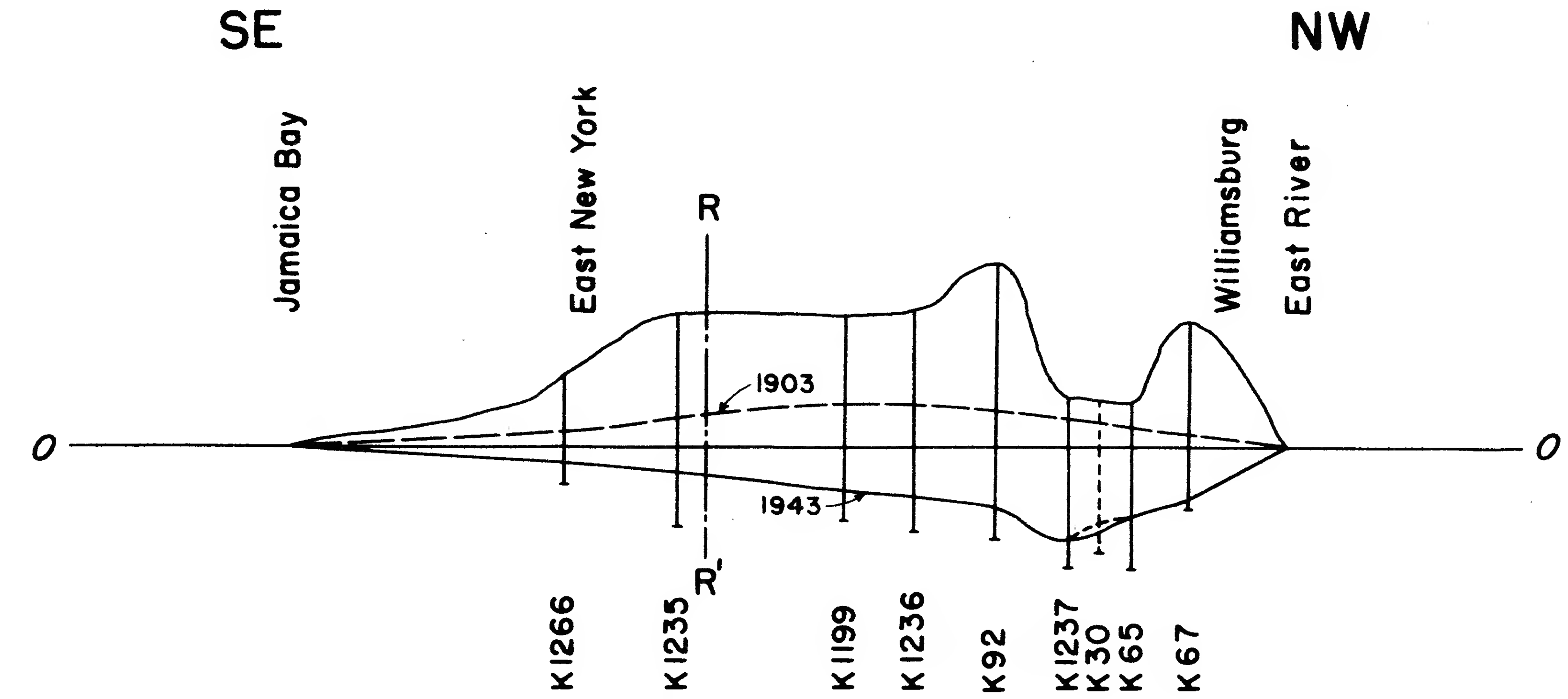
N. Y. C. D. W. S. = City of New York, Department Water Supply, Gas and Electricity

N. Y. S. D. H. = New York State Division of Highways

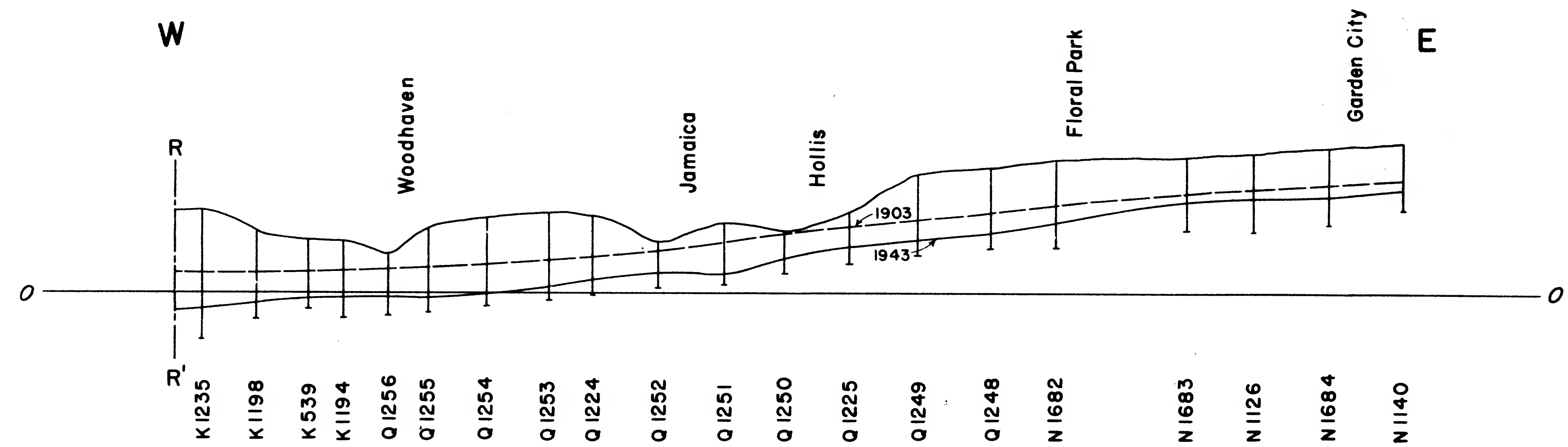
N. Y. W. S. C. = New York Water Service Corporation

U. S. G. S. = U. S. Geological Survey

Y. M. C. A. = Young Men's Christian Association



SECTION A-A'



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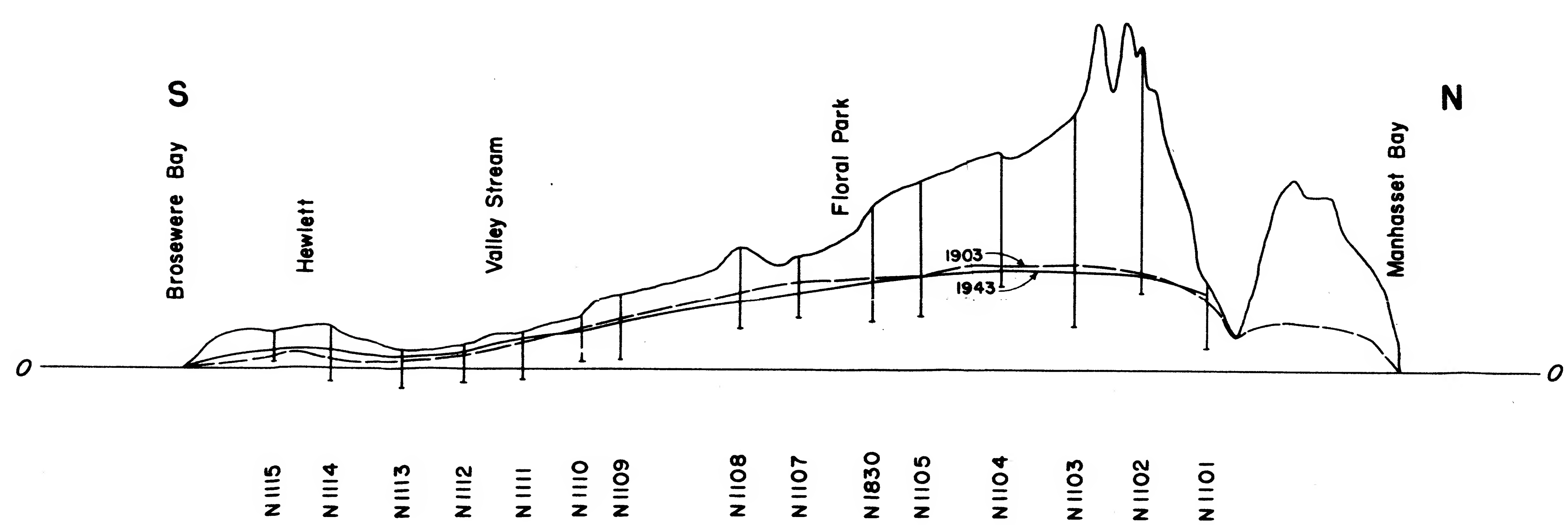
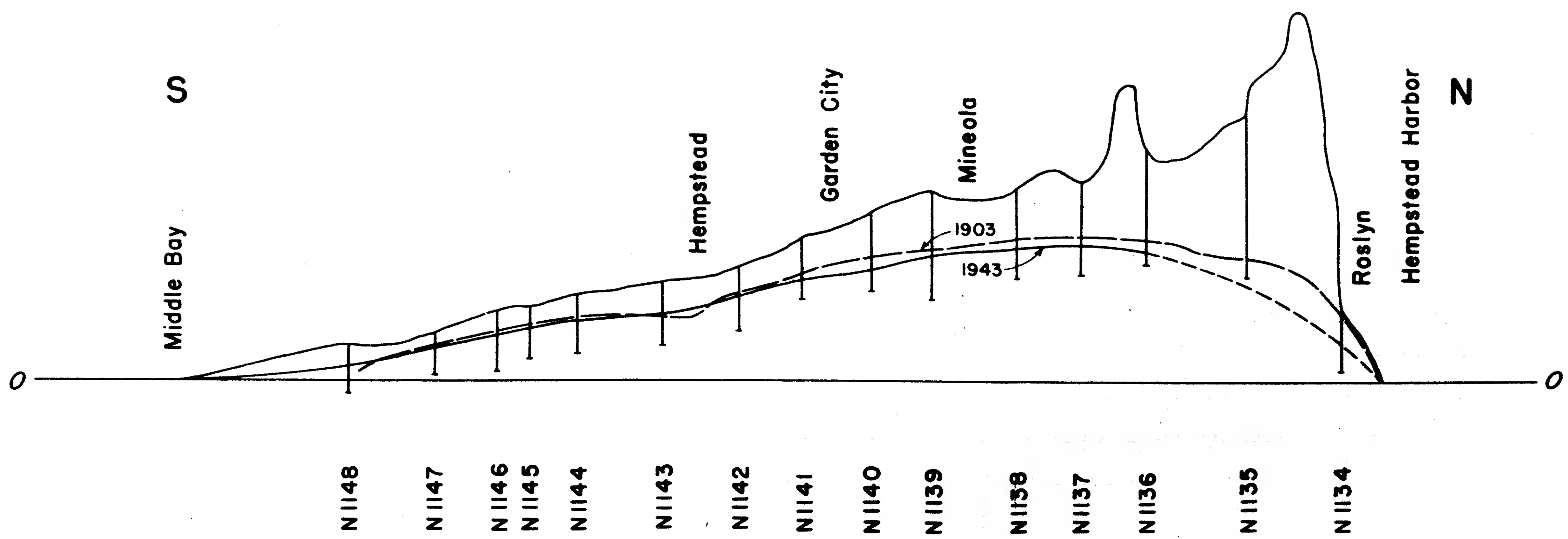


SECTION C-C'

SECTION C-C'



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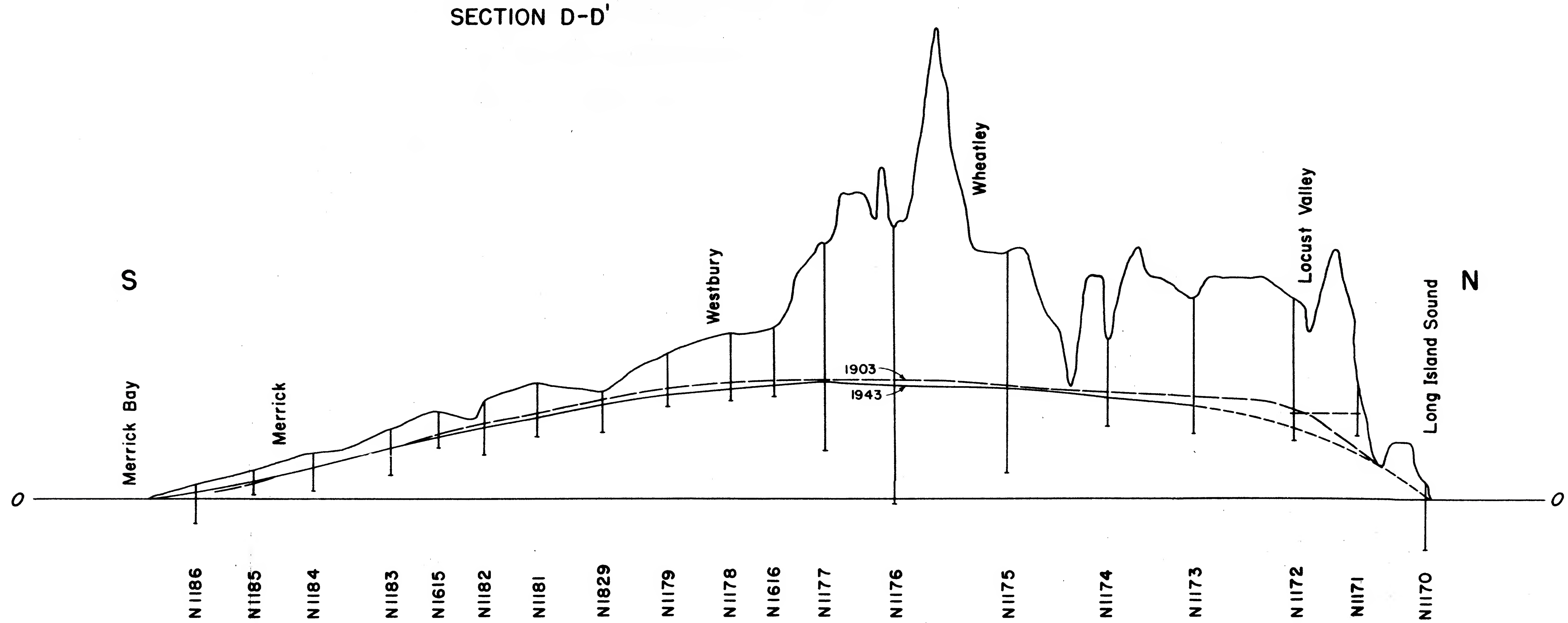

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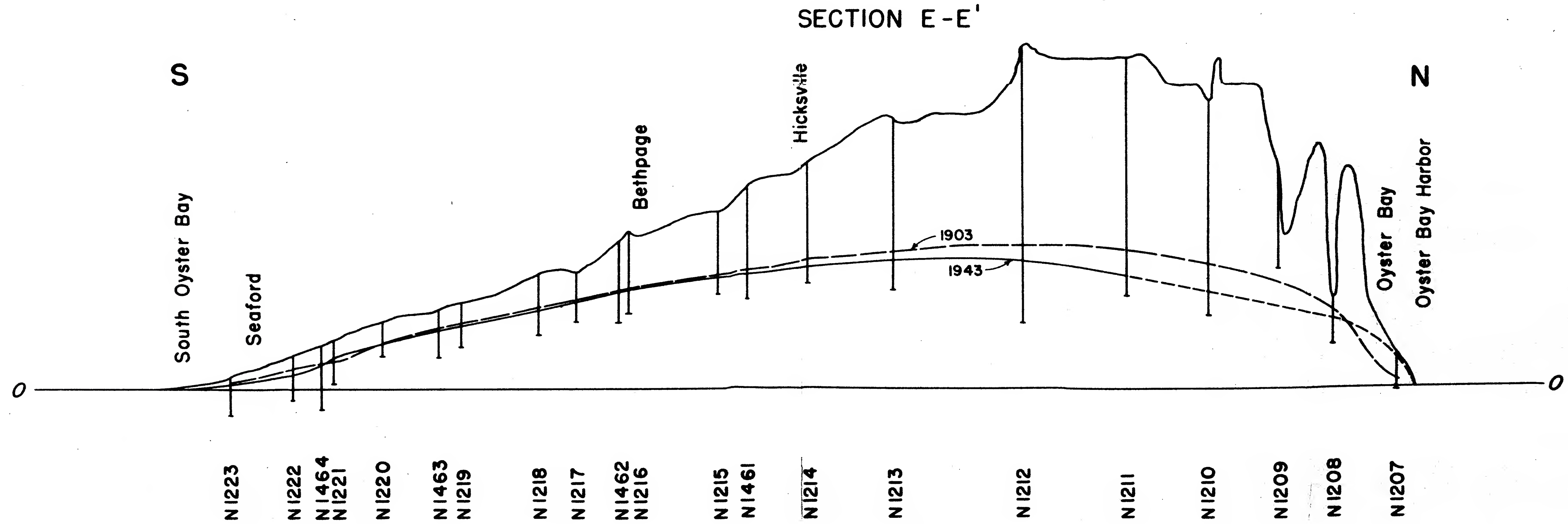

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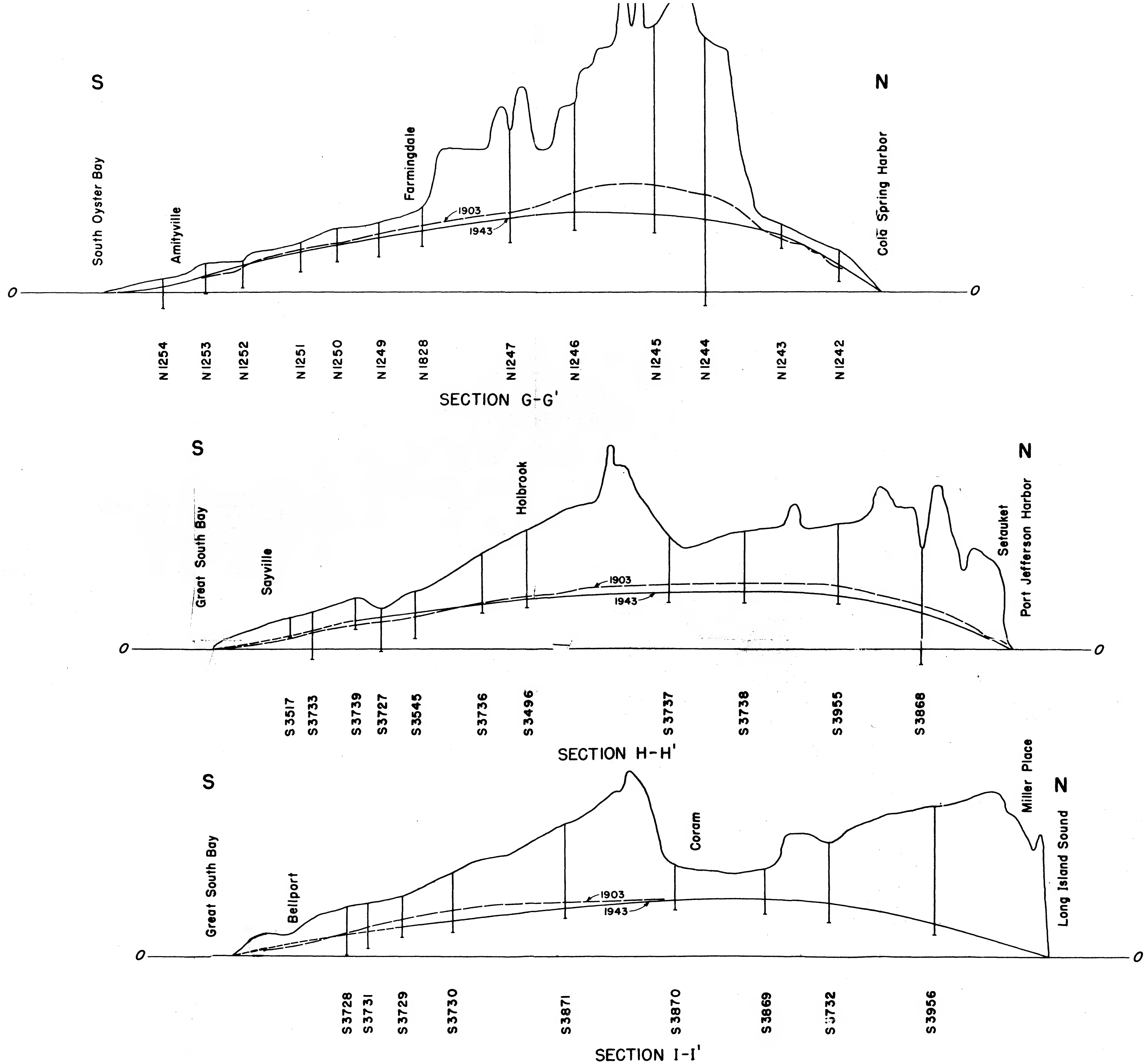
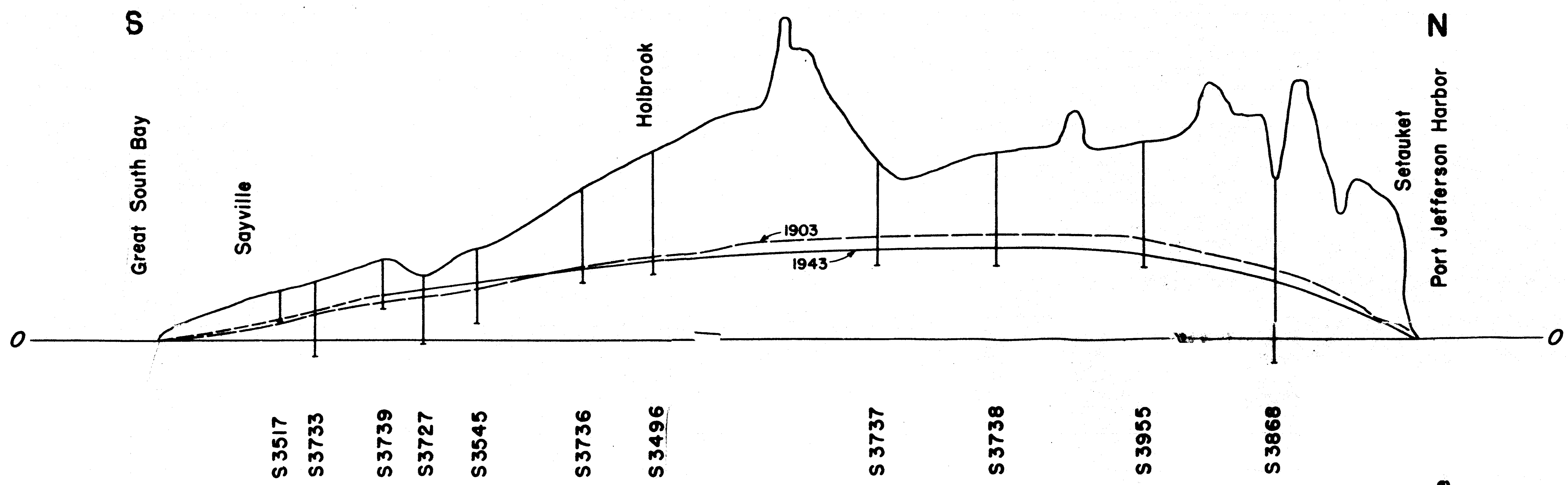


U.S. GEOLOGICAL SURVEY



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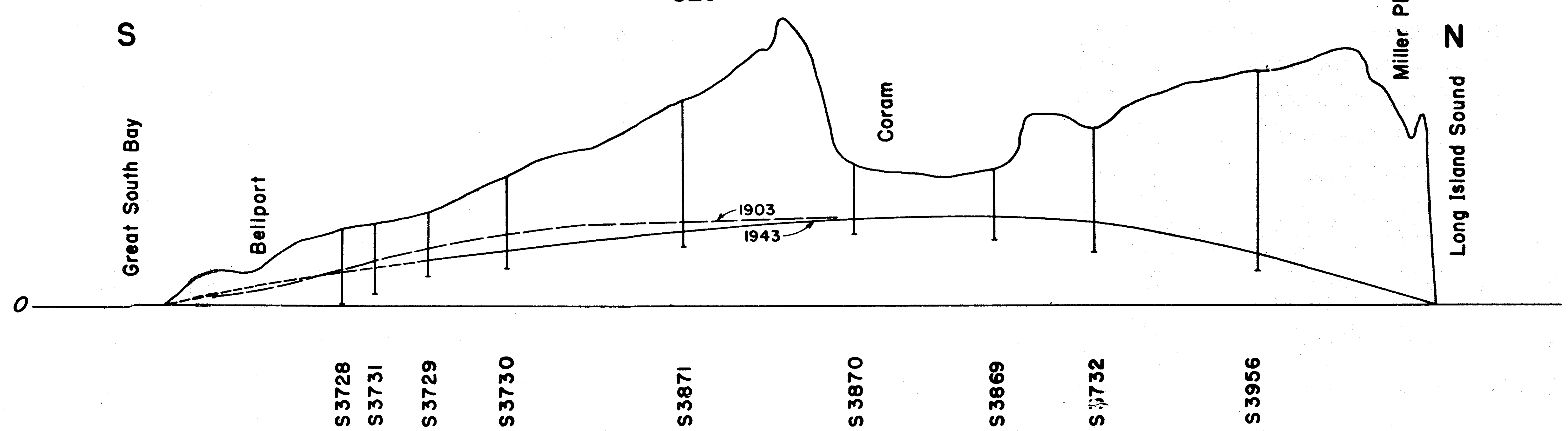


SECTION I-I'

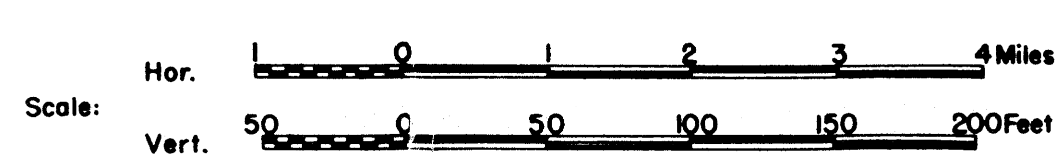
U.S. GEOLOGICAL SURVEY

CROSS-SECTIONS OF THE WESTERN AND CENTRAL PARTS OF

LONG ISLAND, NEW YORK

SHOWING PROFILES OF THE WATER TABLE

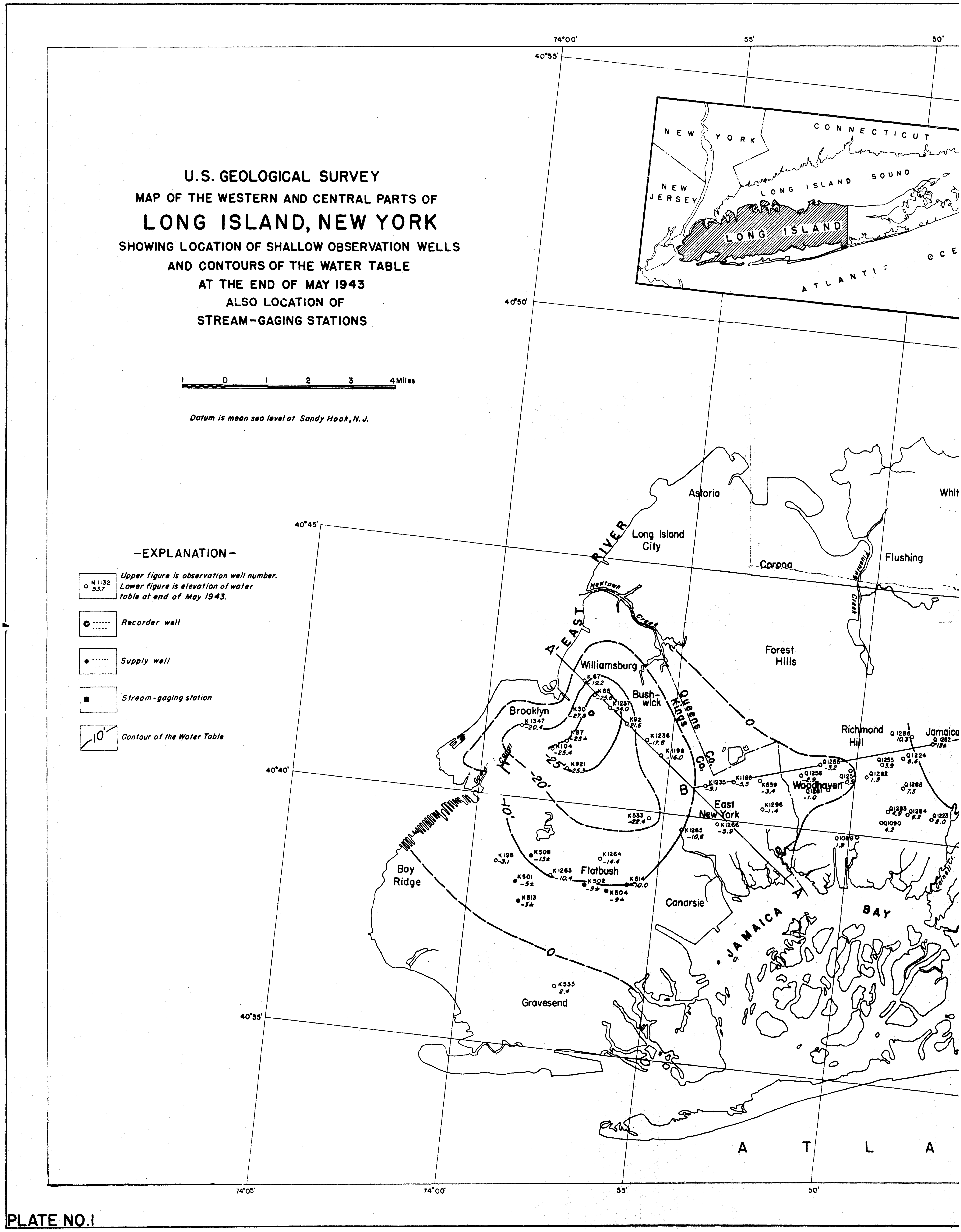
IN 1903 AND 1943



Datum is mean sea level at Sandy Hook, N.J.

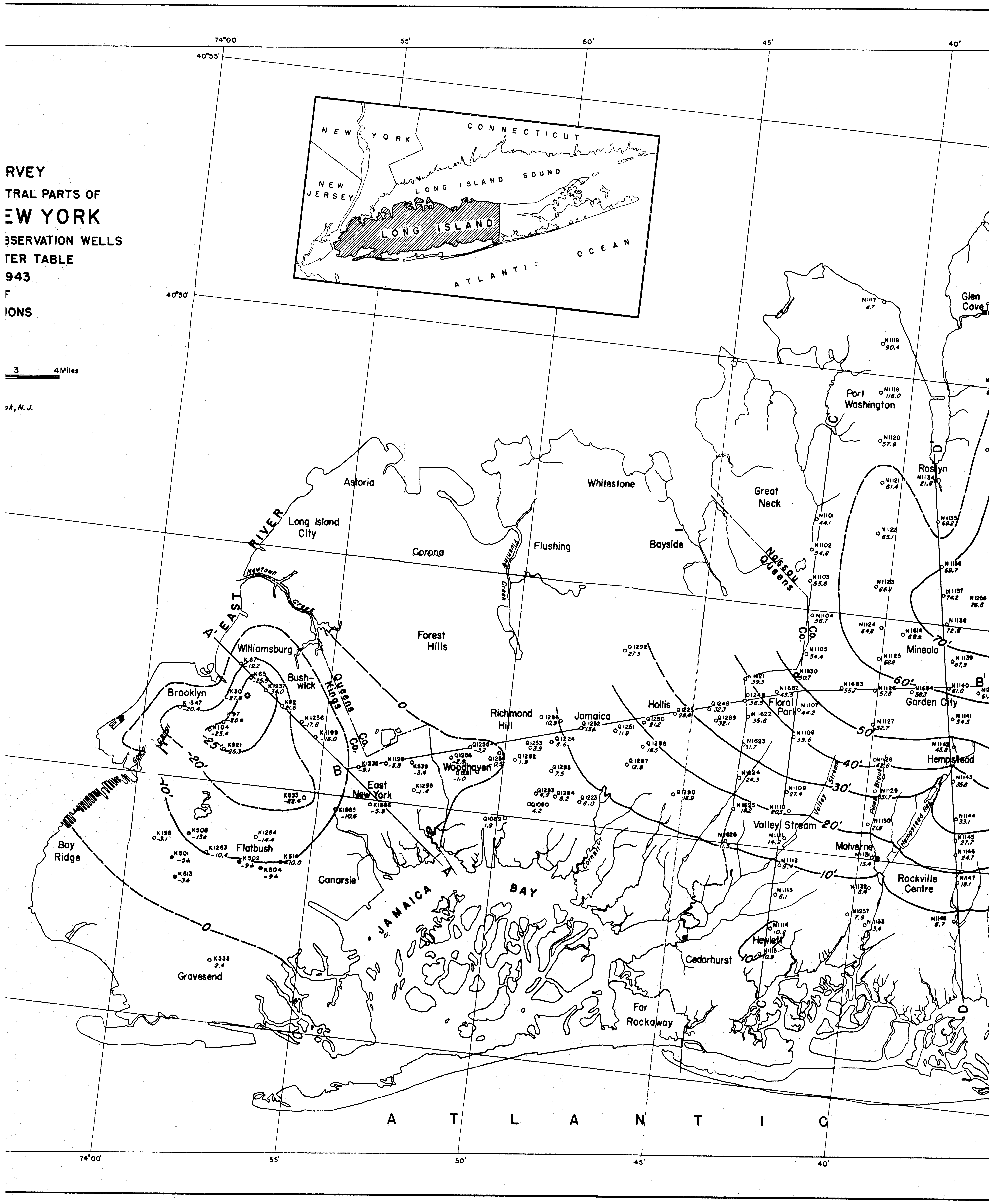
PLATE NO. 2

L.R.W.

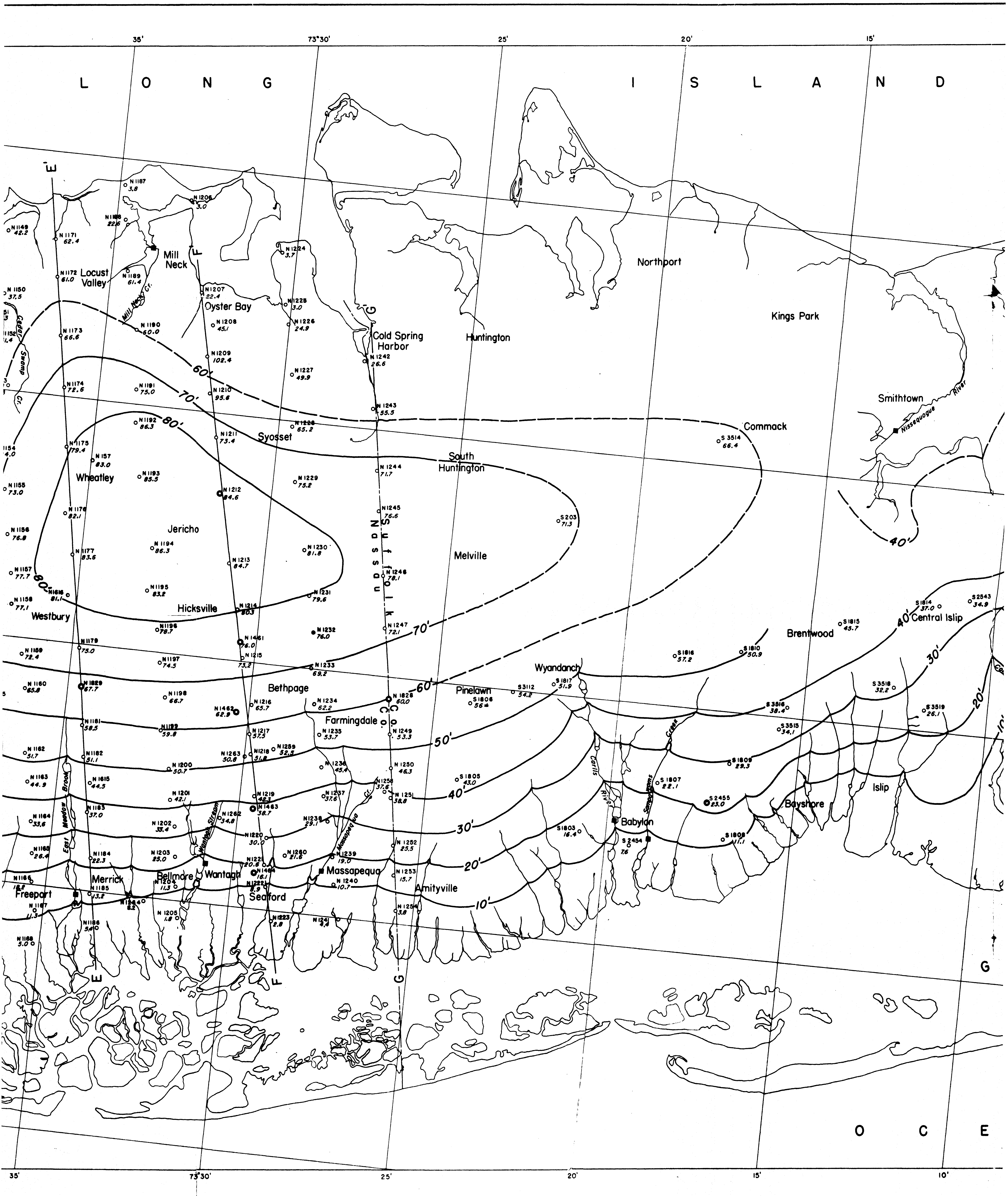


U.S. GEOLOGICAL SURVEY
MAP OF THE WESTERN AND CENTRAL PARTS OF
LONG ISLAND, NEW YORK
SHOWING LOCATION OF SHALLOW OBSERVATION WELLS
AND CONTOURS OF THE WATER TABLE
AT THE END OF MAY 1943
ALSO LOCATION OF
STREAM-GAGING STATIONS
1 0 1 2 3 4 Miles
Datum is mean sea level at Sandy Hook, N.J.
-EXPLANATION-
N1132 53.7
Upper figure is observation well number. Lower figure is elevation of water table at end of May 1943.
Recorder well
Supply well
Stream-gaging station
10'
Contour of the Water Table
NEW YORK
CONNECTICUT
NEW JERSEY
LONG ISLAND SOUND
LONG ISLAND
ATLANTIC
74°00'
55'
50'
40°55'
40°50'
40°45'
40°40'
40°35'
74°05'
Astoria
Long Island City
Corona
Flushing
EAST RIVER
Newtown Creek
Flushing Creek
Forest Hills
Williamsburg
Brooklyn
Bush-wick
Queens Co.
Kings Co.
Richmond Hill
Jamaica
Woodhaven
East New York
Flatbush
Bay Ridge
Canarsie
Gravesend
JAMAICA BAY
A
A'
B
0
10'
20'
25'
K67 19.2
K1347 -20.4
K533 -22.4
K535 2.4
A T L A

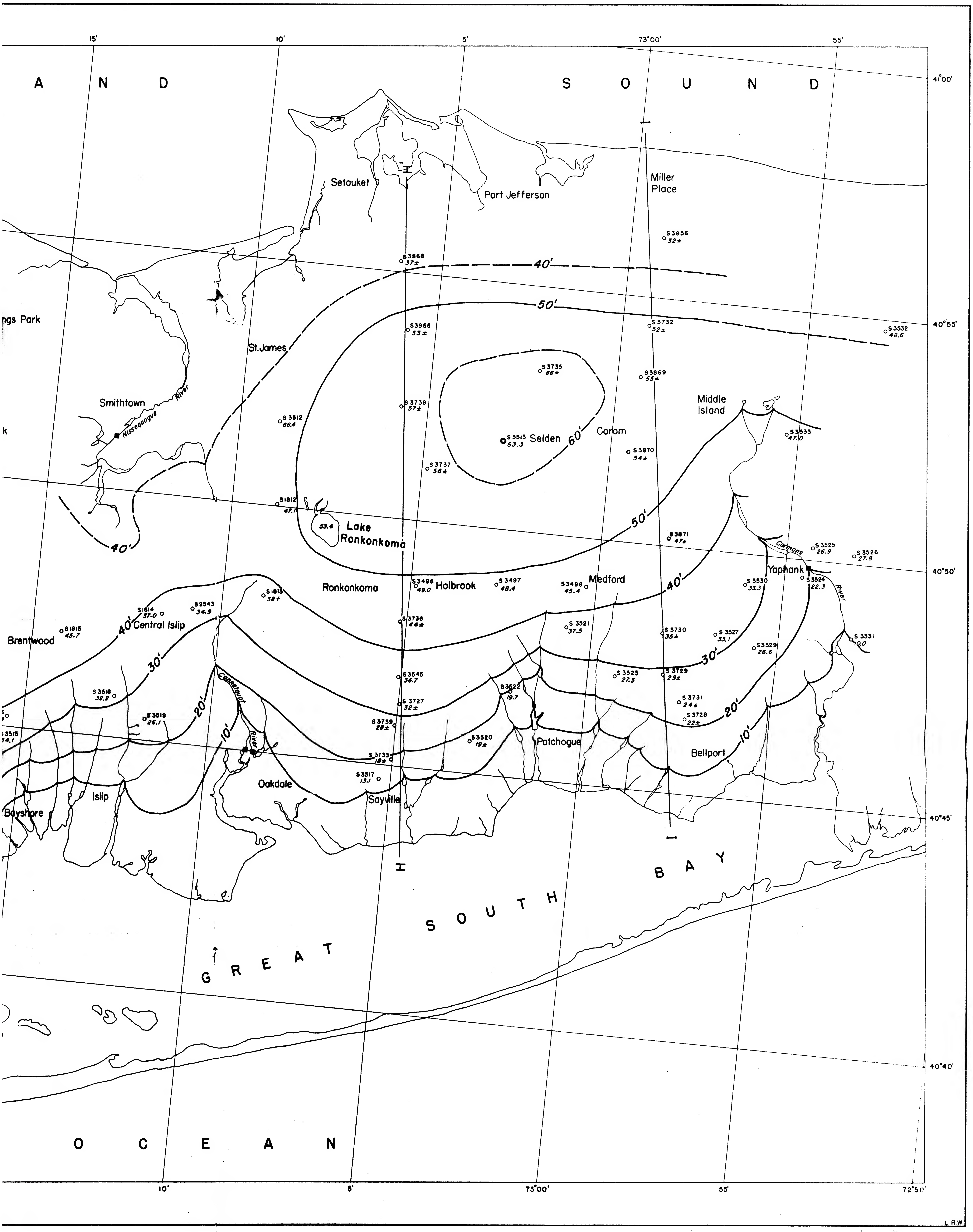
PLATE NO. I



RVEY
TRAL PARTS OF
EW YORK
BSERVATION WELLS
TER TABLE
943
F
IONS
3
4 Miles
k, N.J.
74°00'
55'
50'
45'
40'
40°55'
40°50'
NEW YORK
CONNECTICUT
NEW JERSEY
LONG ISLAND SOUND
LONG ISLAND
ATLANTIC OCEAN
Glen Cove
Port Washington
Roslyn
Great Neck
Astoria
Whitestone
Long Island City
EAST RIVER
Newtown Creek
Corona
Flushing
Flushing Creek
Bayside
Nassau Co.
Queens Co.
Forest Hills
Mineola
Williamsburg
Bushwick
Queens Co.
Kings Co.
Brooklyn
Richmond Hill
Jamaica
Hollis
Floral Park
Garden City
Woodhaven
East New York
Hempstead
Valley Stream
Malverne
Flatbush
Bay Ridge
Canarsie
JAMAICA BAY
Rockville Centre
Hewlett
Cedarhurst
Gravesend
Far Rockaway
ATLANTIC



35'
73°30'
25'
20'
15'
10'
L O N G I S L A N D
O C E
Mill Neck
Locust Valley
Oyster Bay
Cold Spring Harbor
Huntington
Northport
Kings Park
Smithtown
Nissequogue River
Commack
Syosset
South Huntington
Wheatley
Jericho
Melville
Westbury
Hicksville
Brentwood
Central Islip
Wyandanch
Bethpage
Pinelawn
Farmingdale
Islip
Bayshore
Babylon
Amityville
Massapequa
Seaford
Wantagh
Bellmore
Merrick
Freeport
Nassau
Suffolk
Co.
Co.
Mill Neck Cr.
Cedar Swamp Cr.
East Meadow Brook
Wantagh Stream
Massapequa Cr.
Carlls River
Sampawams Cr.
Green Cr.
80'
70'
60'
50'
40'
30'
20'
10'
E
F
G



15'
10'
5'
73°00'
55'
41°00'
40°55'
40°50'
40°45'
40°40'
72°50'
A N D
S O U N D
Setauket
Port Jefferson
Miller Place
ngs Park
St. James
Smithtown
Nissequogue River
Middle Island
Selden
Coram
Lake Ronkonkoma
Ronkonkoma
Holbrook
Medford
Yaphank
Carmans River
Brentwood
Central Islip
Connetquot River
Patchogue
Bellport
Oakdale
Sayville
Islip
Bayshore
GREAT SOUTH BAY
O C E A N
H
H
40'
50'
60'
30'
20'
10'
S3868 37±
S3956 32±
S3955 53±
S3732 52±
S3532 48.6
S3735 66±
S3869 55±
S3738 57±
S3512 68.4
S3513 63.3
S3870 54±
S3533 47.0
S3737 56±
S1812 47.1
53.4
S3871 47±
S3525 26.9
S3526 27.8
S3496 49.0
S3497 48.4
S3498 45.4
S3530 33.3
S3524 22.3
S1813 38+
S2543 34.9
S1814 37.0
S1815 45.7
S3736 44±
S3521 37.5
S3730 35±
S3527 33.1
S3531 10.0
S3529 26.6
S3545 36.7
S3523 27.3
S3729 29±
S3518 32.2
S3522 19.7
S3727 32±
S3731 24±
S3519 26.1
S3739 28±
S3728 22±
S3515 34.1
S3520 19±
S3733 18±
S3517 13.1
LRW